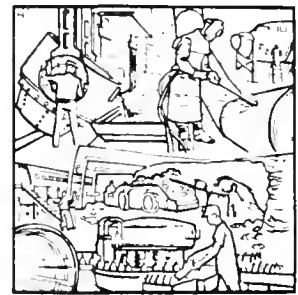


Manufacturers' Shipments, Inventories, and Orders

August 1976



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William Menth
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All figures in text below are in seasonally adjusted current dollars

New orders for all manufactured products declined in August by 0.8 percent or \$804 million to \$93,999 million, the Bureau of the Census, Department of Commerce reported today. A 1.5 percent decline in new orders for durable goods (revised from a 2.2 percent decline reported earlier) was dampened by a much smaller decline in nondurable goods. The 11.0 percent or \$435 million decline to \$3,509 million in the blast furnaces and steel mill industry accounted for about half the durable goods decline. New orders for nonelectrical machinery declined by 5.5 percent or \$472 million to \$8,167 million following a July increase of 8.1 percent or \$647 million.

New orders for nondefense capital goods declined by 11.1 percent (reported earlier as an 11.7 percent decline) or \$1,474 million to \$11,769 million following the July increase of 11.9 percent or \$1,408 million. The average for the months of July and August is \$12,506 million, 11.9 percent above the \$11,179 million monthly average for the first half of 1976. New orders for defense capital goods rose by 92.7 percent (reported earlier as an 83.7 percent rise) or \$917 million to \$1,906 million after the July decline of 60.7 percent. The average of July and August is \$1,448 million or 29.7 percent below the \$2,061 million monthly average for the first half of 1976.

Shipments for all manufacturing industries rose in August by 0.6 percent or \$571 million to \$94,483 million. Shipments of durable goods rose by 1.2 percent or \$550 million to \$48,329 million and shipments of nondurable goods, \$46,154 million in August compared to \$46,133 in July, are virtually unchanged.

Unfilled orders for all manufactured products fell by 0.4 percent or \$482 million to \$122,388 million. This is the first decline since this series began to rise

in March 1976. Most of this decline was in the steel industry where the backlog of orders fell 3.0 percent or \$324 million to \$10,323 million.

Inventories held by manufacturers rose again in August continuing the upward trend which began 11 months ago. The August increase of 0.6 percent or \$921 million to \$152,745 million brings this series above the previous high of \$151,993 million set in February 1975. Nondurable goods rose by 1.4 percent or \$731 million to \$54,729 million while durable goods, \$98,016 million in August compared to \$97,826 million in July, are virtually unchanged. A rise of 2.9 percent or \$351 million in foods to \$12,664 million and 1.6 percent or \$190 million in chemicals to \$11,789 million accounted for most of the nondurable goods rise. A 1.4 percent or \$700 million increase in finished product inventories accounted for most of the change in inventories.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for September is scheduled for release on October 22, 1976 and the full report is scheduled for release on November 3, 1976.

This report contains data on an unadjusted and seasonally adjusted basis. However, the data are not adjusted for price changes. For an explanation of terms used in this report see appendix following table 5.



U.S. Department of Commerce BUREAU OF THE CENSUS

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233. For sale by the Subscriber Services Section (Publications), Bureau of the Census, Washington, D.C. 20233 or any Department of Commerce District Office. Price: 30 cents per copy, \$3.60 per year.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1976 ^P	July 1976 ^F	Aug. 1975	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1976 ^P	July 1976 ^F	Aug. 1975
All manufacturing industries:												
Total.....	94,483	93,912	94,244	93,541	87,504	83,775	152,745	151,824	150,911	152,041	151,014	145,976
Total, excluding transportation.....	83,332	82,819	82,382	83,248	77,794	75,027	131,128	129,964	128,881	130,389	129,618	124,821
Durable goods industries, total.	48,329	47,779	48,475	47,165	43,746	40,881	98,016	97,826	97,616	97,810	97,459	97,017
Stone, clay, and glass products.	2,474	2,399	2,389	2,645	2,362	2,355	3,803	3,711	3,654	3,747	3,741	3,608
Primary metals, total.....	7,673	7,660	7,713	7,450	6,997	6,222	14,910	14,847	14,674	14,702	14,603	13,900
Blast furnaces, steel mills.	3,833	3,985	4,093	3,814	3,702	3,094	8,709	8,570	8,410	8,535	8,364	7,606
Nonferrous metals.....	2,643	2,585	2,441	2,500	2,293	2,089	4,629	4,697	4,697	4,602	4,654	4,655
All other primary metals.....	1,197	1,090	1,179	1,136	1,002	1,039	1,572	1,580	1,567	1,565	1,585	1,639
Fabricated metal products												
total.....	5,952	5,986	6,021	6,039	5,577	5,307	10,567	10,618	10,564	10,731	10,838	11,259
Metal cans, barrels, and drums.....	637	636	599	735	705	702	841	877	914	873	954	891
Machinery, except electrical,												
total.....	8,329	8,310	8,028	7,807	7,590	6,848	20,983	20,870	20,955	20,795	20,767	21,702
Engines and turbines.....	717	667	617	657	526	521	1,895	1,852	1,891	1,871	1,837	1,849
Farm machinery and equipment.	823	818	814	749	702	636	1,822	1,805	1,809	1,793	1,785	1,954
Construction, mining, and												
material handling equipment.	1,707	1,739	1,685	1,653	1,649	1,591	4,885	4,888	4,884	4,827	4,859	4,908
Metalworking machinery.....	511	554	520	451	485	477	1,553	1,545	1,585	1,552	1,541	1,867
General industrial machinery	884	910	911	878	852	734	2,027	1,991	1,981	2,002	1,993	2,048
Electrical machinery, total...	6,201	6,040	6,011	6,052	5,516	5,339	13,704	13,597	13,493	13,732	13,698	13,349
Electrical transmission and												
distribution equipment and												
industrial apparatus.....	1,275	1,214	1,231	1,206	1,122	1,071	3,003	2,982	2,919	2,991	2,991	2,915
Household appliances.....	907	861	864	935	857	835	1,247	1,249	1,251	1,221	1,256	1,075
Radio and TV.....	516	526	457	557	450	512	1,034	1,010	1,022	1,092	1,061	1,005
Communication equipment.....	1,421	1,320	1,270	1,343	1,204	1,171	4,193	4,154	4,150	4,176	4,133	4,184
Transportation equipment, total	11,151	11,093	11,862	10,293	9,710	8,748	21,617	21,860	22,030	21,652	21,396	21,155
Motor vehicles and parts....	7,981	7,859	8,569	7,260	6,640	5,613	6,005	6,503	6,622	6,185	6,067	6,092
Aircraft, missiles, and												
parts.....	2,012	2,042	2,168	1,906	1,946	2,046	11,942	11,768	11,848	11,847	11,710	11,715
Shipbuilding and railroad												
equipment.....	585	602	604	566	539	530	2,829	2,787	2,758	2,800	2,834	2,689
Instruments and related												
products, total.....	1,628	1,641	1,592	1,634	1,530	1,443	3,871	3,825	3,786	3,895	3,881	3,973
Scientific and engineering..	868	856	825	860	795	743	1,996	1,987	1,983	1,998	2,003	1,961
All other instruments and												
related products.....	760	785	767	774	735	700	1,875	1,838	1,803	1,897	1,878	2,012
All other durable goods												
industries.....	4,921	4,650	4,859	5,245	4,464	4,619	8,561	8,498	8,460	8,556	8,535	8,071
Nondurable goods industries,												
total.....	46,154	46,133	45,769	46,376	43,758	42,894	54,729	53,998	53,295	54,231	53,555	48,959
Food and kindred products,												
total.....	14,719	14,776	14,724	14,614	14,184	14,059	12,664	12,313	11,968	12,408	11,901	10,782
Meat products.....	3,029	3,112	3,130	3,059	3,078	3,150	1,490	1,409	1,376	1,375	1,377	1,162
Fats and oils.....	1,408	1,444	1,293	1,417	1,362	1,208	1,088	1,122	1,082	978	1,035	693
Tobacco products.....	600	604	610	622	617	647	3,498	3,445	3,419	3,274	3,156	2,947
Textile mill products.....	3,041	3,134	3,293	3,082	2,684	2,986	4,916	4,814	4,750	4,912	4,875	4,312
Paper and allied products,												
total.....	3,988	3,928	3,938	4,035	3,699	3,471	4,982	4,882	4,866	4,979	4,958	4,578
Pulp, paper, etc.....	1,920	1,847	1,851	1,947	1,761	1,571	1,889	1,874	1,869	1,887	1,887	1,789
Paperboard containers.....	870	844	857	875	798	802	1,339	1,287	1,302	1,351	1,316	1,156
All other paper containers..	1,198	1,237	1,230	1,213	1,140	1,098	1,754	1,721	1,695	1,741	1,755	1,633
Chemicals and allied products,												
total.....	7,885	7,896	7,893	7,731	7,272	7,296	11,789	11,599	11,365	11,697	11,608	10,739
Industrial chemicals, except												
pigments.....	2,689	2,713	2,674	2,662	2,558	2,351	3,370	3,297	3,213	3,333	3,280	2,932
Drugs, soap, and toiletries.	2,093	2,228	2,241	2,189	2,007	2,072	3,742	3,727	3,627	3,776	3,806	3,692
Petroleum and coal products...	6,466	6,406	6,186	6,439	6,344	5,865	4,559	4,582	4,558	4,578	4,553	4,175
Rubber and plastics products,												
n.e.c.....	2,200	2,204	2,170	2,203	2,035	2,065	2,954	2,975	3,009	2,908	2,929	2,908
All other nondurable goods												
industries.....	7,255	7,185	6,955	7,650	6,923	6,505	9,367	9,388	9,360	9,475	9,575	8,518

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

Millions of dollars¹

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment ¹		
	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1976 ^P	July 1976 ^F	Aug. 1975	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1976 ^P	July 1976 ^F	Aug. 1975
All manufacturing industries:												
Total.....	93,999	94,803	95,596	93,090	89,676	83,716	122,388	122,870	121,974	122,633	123,083	123,749
Total, excluding transportation.....	82,751	83,320	83,678	82,741	78,638	75,290	90,544	91,124	90,620	90,620	91,127	91,291
Durable goods industries, total.	47,966	48,721	49,926	46,919	45,980	40,707	117,050	117,410	116,465	117,321	117,564	119,243
Primary metals, total.....	7,191	7,662	8,075	7,092	6,979	6,281	15,304	15,787	15,785	15,288	15,645	14,354
Blast furnaces, steel mills.	3,509	3,944	4,305	3,627	3,619	3,221	10,323	10,647	10,687	10,364	10,551	9,192
Nonferrous metals.....	2,470	2,621	2,597	2,332	2,371	2,057	3,145	3,319	3,283	3,114	3,282	2,652
Fabricated metal products.....	5,973	6,250	6,075	6,050	5,815	5,249	16,926	16,906	16,642	16,933	16,922	18,213
Machinery, except electrical, total.....	8,167	8,639	7,992	7,719	7,772	6,544	24,075	24,237	23,908	24,021	24,109	26,439
Engines and turbines.....	744	897	641	708	733	551	7,037	7,011	6,781	7,028	6,977	6,932
Construction, mining, and material handling equipment.	1,700	1,725	1,650	1,610	1,579	1,372	5,015	5,022	5,036	5,010	5,052	6,438
Metalworking machinery.....	574	539	518	522	490	465	1,577	1,515	1,529	1,588	1,518	1,908
General industrial machinery.	715	1,013	931	790	887	744	3,331	3,499	3,397	3,324	3,412	3,548
Electrical machinery, total...	6,287	5,936	6,657	6,201	5,936	5,732	20,114	20,028	20,131	20,247	20,099	19,547
Electrical transmission and distribution equipment and industrial apparatus.....	1,253	1,290	1,215	1,179	1,187	1,153	5,470	5,492	5,416	5,489	5,517	5,875
Household appliances.....	905	861	870	937	864	835	134	136	136	138	136	146
Radio and TV.....	568	614	471	611	535	536	561	509	420	594	540	462
Communication equipment.....	1,351	1,089	1,894	1,318	1,467	1,413	8,057	8,127	8,358	8,042	8,067	7,341
Transportation equipment, total.....	11,248	11,483	11,918	10,349	11,038	8,426	31,844	31,746	31,354	32,013	31,956	32,458
Aircraft, missiles, and parts.....	2,011	2,042	2,089	1,845	2,766	1,825	19,521	19,521	19,520	19,841	19,900	21,051
Shipbuilding and railroad equipment.....	610	989	671	592	922	539	8,508	8,483	8,095	8,425	8,399	8,299
All other durable goods industries.....	9,100	8,751	9,209	9,508	8,440	8,475	8,787	8,706	8,645	8,819	8,833	8,232
Nondurable goods industries, total.....	46,033	46,082	45,670	46,171	43,696	43,009	5,338	5,460	5,509	5,312	5,519	4,506
Industries with unfilled orders.....	10,641	10,698	10,691	10,638	9,795	9,828	5,338	5,460	5,509	5,312	5,519	4,506
Industries without unfilled orders.....	35,392	35,384	34,979	35,533	33,901	33,181	-	-	-	-	-	-

⁻ Represents zero.^P Preliminary.^F Revised.¹ Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Aug. 1976 ^P	July 1976 ^R	June 1976	Aug. 1976 ^P	July 1976 ^R	Aug. 1975	Aug. 1976 ^P	July 1976 ^R	June 1976	Aug. 1976 ^P	July 1976 ^R	Aug. 1975
	Shipments						Total inventories					
All manufacturing industries, total..	94,483	93,912	94,244	93,541	87,504	83,775	152,745	151,824	150,911	152,041	151,014	145,976
Durable goods industries, total.....	48,329	47,779	48,475	47,165	43,746	40,881	98,016	97,826	97,616	97,810	97,459	97,017
Nondurable goods industries, total.....	46,154	46,133	45,769	46,376	43,758	42,894	54,729	53,998	53,295	54,231	53,555	48,959
Industry groups arranged by market categories:												
Home goods and apparel.....	8,409	8,303	8,303	9,159	7,815	8,307	14,000	13,891	13,847	14,054	14,166	12,473
Consumer staples.....	18,004	18,154	18,157	17,958	17,302	17,152	20,567	20,107	19,663	20,248	19,588	18,519
Equipment and defense products, except automotive.....	12,226	12,212	11,959	11,642	11,314	10,646	38,115	37,870	37,902	37,800	37,789	38,426
Automotive equipment.....	9,190	9,138	9,728	8,447	7,864	6,800	7,479	7,966	8,149	7,623	7,499	7,583
Construction materials, supplies, and intermediate products.....	7,502	7,358	7,327	7,948	7,259	6,685	12,671	12,570	12,448	12,641	12,627	12,753
Other materials and supplies and intermediate products.....	39,152	38,747	38,770	38,387	35,950	34,185	59,913	59,420	58,902	59,675	59,345	56,222
Supplementary series: ²												
Household durable goods industries.....	3,699	3,542	3,605	3,906	3,163	3,627	6,786	6,693	6,666	6,836	6,827	6,327
Capital goods industries.....	13,783	13,632	13,492	13,067	12,607	11,901	42,994	42,583	42,668	42,697	42,540	43,051
Nondefense.....	11,989	11,918	11,762	11,296	10,919	10,183	34,366	34,029	34,195	34,162	33,972	35,539
Defense.....	1,794	1,714	1,730	1,771	1,688	1,718	8,608	8,554	8,473	8,535	8,568	7,512
	New orders						Unfilled orders					
All manufacturing industries, total..	93,999	94,803	95,596	93,090	89,676	83,716	122,388	122,870	121,974	122,633	123,083	123,749
Durable goods industries, total.....	47,966	48,721	49,926	46,919	45,980	40,707	117,050	117,410	116,465	117,321	117,564	119,243
Nondurable goods industries, total.....	46,033	46,082	45,670	46,171	43,696	43,009	5,338	5,460	5,509	5,312	5,519	4,506
Industry groups arranged by market categories:												
Home goods and apparel.....	8,434	8,442	8,306	9,190	8,083	8,329	2,606	2,579	2,407	2,724	2,696	2,415
Consumer staples.....	18,006	18,185	18,173	17,957	17,327	17,175						
Equipment and defense products, except automotive.....	12,144	12,751	12,968	11,418	12,873	10,789	61,271	61,279	60,734	61,275	61,407	62,121
Automotive equipment.....	9,263	9,141	9,796	8,538	7,989	6,690						
Construction materials, supplies, and intermediate products.....	7,524	7,546	7,306	7,866	7,421	6,578	15,118	15,095	14,908	15,110	15,191	16,436
Other materials and supplies and intermediate products.....	38,628	38,738	39,047	38,121	35,983	34,155	43,393	43,917	43,925	43,524	43,789	42,777
Supplementary series: ²												
Household durable goods industries.....	3,738	3,627	3,636	3,968	3,368	3,684	1,849	1,809	1,723	1,979	1,918	1,788
Capital goods industries.....	13,675	14,232	14,352	12,895	14,259	11,752	68,407	68,515	67,912	68,452	68,621	70,934
Nondefense.....	11,769	13,243	11,835	11,285	12,169	9,973	42,399	42,619	41,292	42,510	42,519	45,227
Defense.....	1,906	989	2,517	1,610	2,090	1,779	26,008	25,896	26,620	25,942	26,102	25,707

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historic data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^PPreliminary. ^RRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. ²The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.
Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.
Nondefense industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft, aircraft parts, and ordnance.
Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1970-1975	
	July-Aug. 1976	June-July 1976	May-June 1976	3 months			12 months	Average rise	Average decline
				May-Aug. 1976	Feb.-May 1976	Nov. 1975-Feb. 1976	Aug. 1975-Aug. 1976		
Shipments:									
All manufacturing industries.....	+0.6	-0.4	+0.2	+0.1	+1.2	+1.7	+0.9	+1.4	-1.6
Durable goods industries, total.....	+1.2	-1.4	+0.3	+0.0	+1.9	+2.5	+1.1	+1.5	-2.2
Nondurable goods industries, total.....	+0.0	+0.8	+0.0	+0.3	+0.4	+0.8	+0.6	+1.5	-1.2
Total inventories:									
All manufacturing industries.....	+0.6	+0.6	+1.3	+0.8	+0.4	+0.1	+0.4	+0.9	-0.3
New orders:									
All manufacturing industries.....	-0.8	-0.8	+0.2	-0.5	+1.9	+1.5	+0.8	+1.8	-1.9
Durable goods industries, total.....	-1.5	-2.4	+0.7	-1.1	+3.3	+2.3	+1.1	+2.4	-2.7
Nondurable goods industries, total.....	-0.1	+0.9	-0.3	+0.2	+0.4	+0.7	+0.6	+1.5	-1.3
Unfilled orders:									
Durable goods industries, total.....	-0.3	+0.8	+1.3	+0.6	+0.5	-0.8	-0.1	+1.7	-1.2

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Aug. 1976 ^P	July 1976 ^r	June 1976	Aug. 1976 ^P	July 1976 ^r	Aug. 1975	Aug. 1976 ^P	July 1976 ^r	June 1976	Aug. 1976 ^P	July 1976 ^r	Aug. 1975
	Total						Materials and supplies					
All manufacturing industries, total..	152,745	151,824	150,911	152,041	151,014	145,976	52,598	52,769	52,474	52,698	52,537	50,914
Durable goods industries, total.....	98,016	97,826	97,616	97,810	97,459	97,017	31,091	31,512	31,539	31,538	31,528	32,076
Stone, clay, and glass products.....	3,803	3,711	3,654	3,747	3,741	3,608	1,324	1,326	1,314	1,322	1,327	1,383
Primary metals.....	14,910	14,847	14,674	14,702	14,603	13,900	6,486	6,608	6,675	6,546	6,508	6,336
Machinery (electrical and nonelectrical).	34,687	34,467	34,448	34,527	34,465	35,051	10,165	10,061	10,019	10,210	10,211	10,724
Transportation equipment.....	21,617	21,860	22,030	21,652	21,396	21,155	4,455	4,907	4,983	4,539	4,575	4,717
All other durable goods industries.....	22,999	22,941	22,810	23,182	23,254	23,303	8,661	8,610	8,548	8,921	8,907	8,916
Nondurable goods industries, total.....	54,729	53,998	53,295	54,231	53,555	48,959	21,507	21,257	20,935	21,160	21,009	18,838
Chemicals and allied products.....	11,789	11,599	11,365	11,697	11,608	10,739	4,459	4,408	4,339	4,444	4,425	4,439
Petroleum and coal products.....	4,559	4,582	4,558	4,578	4,553	4,175	1,246	1,293	1,284	1,242	1,297	981
Rubber and plastics products, n.e.c.....	2,954	2,975	3,009	2,908	2,929	2,908	1,290	1,249	1,217	1,304	1,258	1,006
All other nondurable goods industries....	35,427	34,842	34,363	35,048	34,465	31,137	14,512	14,307	14,095	14,170	14,029	12,412
	Work in process						Finished goods					
All manufacturing industries, total..	50,287	49,895	49,760	50,110	49,654	49,063	49,860	49,160	48,677	49,233	48,823	45,999
Durable goods industries, total.....	41,895	41,601	41,524	41,718	41,330	41,520	25,030	24,713	24,553	24,554	24,601	23,421
Stone, clay, and glass products.....	552	556	542	545	559	501	1,927	1,829	1,798	1,880	1,855	1,724
Primary metals.....	4,887	4,773	4,682	4,768	4,706	4,362	3,537	3,466	3,317	3,388	3,389	3,202
Machinery (electrical and nonelectrical).	14,626	14,644	14,670	14,596	14,530	15,043	9,896	9,762	9,759	9,721	9,724	9,284
Transportation equipment.....	15,127	14,913	14,994	15,080	14,827	14,489	2,035	2,040	2,053	2,033	1,994	1,949
All other durable goods industries.....	6,703	6,715	6,636	6,729	6,708	7,125	7,635	7,616	7,626	7,532	7,639	7,262
Nondurable goods industries, total.....	8,392	8,294	8,236	8,392	8,324	7,543	24,830	24,447	24,124	24,679	24,222	22,578
Chemicals and allied products.....	1,940	1,888	1,857	1,920	1,876	1,751	5,390	5,303	5,169	5,333	5,307	4,549
Petroleum and coal products.....	1,194	1,211	1,216	1,187	1,218	1,073	2,119	2,078	2,058	2,149	2,038	2,121
Rubber and plastics products, n.e.c.....	500	494	494	498	491	495	1,164	1,232	1,298	1,106	1,180	1,407
All other nondurable goods industries....	4,758	4,701	4,669	4,787	4,739	4,224	16,157	15,834	15,599	16,091	15,697	14,501

^PPreliminary.^rRevised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1975	Aug. 1976 ^P	July 1976 ^F	June 1976	Aug. 1975
All manufacturing industries, total.....	1.62	1.62	1.60	1.72	2.32	2.36	2.33	2.65
Durable goods industries, total.....	2.03	2.05	2.01	2.29	2.79	2.84	2.80	3.22
Stone, clay, and glass products.....	1.54	1.55	1.53	1.66	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.94	1.94	1.90	2.19	1.99	2.06	2.05	2.25
Fabricated metals.....	1.78	1.77	1.75	2.10	3.18	3.16	3.07	3.94
Machinery, except electrical.....	2.52	2.51	2.61	3.00	2.89	2.92	2.98	3.63
Electrical machinery.....	2.21	2.25	2.24	2.44	3.24	3.32	3.35	3.55
Transportation equipment.....	1.94	1.97	1.86	2.10	5.55	5.59	5.37	5.96
Instruments and related products.....	2.38	2.33	2.38	2.74	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.19	1.17	1.16	1.15	0.50	0.51	0.51	0.47
Food and kindred products.....	0.86	0.83	0.81	0.78	(X)	(X)	(X)	(X)
Tobacco products.....	5.83	5.70	5.60	5.04	(X)	(X)	(X)	(X)
Textile mill products.....	1.62	1.54	1.44	1.47	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.25	1.24	1.24	1.34	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.50	1.47	1.44	1.44	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.71	0.72	0.74	0.71	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.34	1.35	1.39	1.43	(X)	(X)	(X)	(X)

NA: Not available. P: Preliminary. F: Revised. (X): Not applicable.

¹Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the Annual Survey of Manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments—Shipments in the monthly survey are equivalent to value of shipments as reported

in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories—End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if

feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and nondurable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders—Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They

also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.